

**EXHIBIT 9**  
**REDACTED**  
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Bid Shading and SPO  
Overview.docx

**Bid Shading** is the concept of a DSP, or SSP, dynamically reducing a buyers' bid so that they do not overpay in a 1<sup>st</sup> price auction. The topic of bid shading is hot in the industry right now as buyers are being forced to rethink their bidding strategy in a 1<sup>st</sup> price world.

### **Xandr Bid Price Optimization (BPO)**

The Xandr DSP offers a free, proprietary bid shading algorithm called "**Bid Price Optimization**" (**BPO**) which dynamically reduces all bids from our DSP before sending the bid to an SSP.

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### **Competitive Offerings**

- **The Trade Desk** offers a paid bid shading service called "KOA". When a buyer opts into KOA so TTD will reduce their bids before submitting them into a 1<sup>st</sup> price auction, TTD charges 15% of the bid reduction to keep as Profit.
- **Google** has a free, opt in feature called "Optimized Fixed CPM Bidding" which dynamically reduces bids. This seems like a less transparent solution without the ability to report out on reduction like we offer.
- **MediaMath** also has bid shading capabilities.
- On the SSP side, Rubicon released an Estimated Market Rate (EMR) feature to help buyers understand the true value of inventory in a 1<sup>st</sup> price auction, and Pubmatic released Intelligent Bidding. SSPs are incentivized for a bid to win in their exchange at higher CPMs because they are paid on a % of revenue (SASC) model; for this reason, some buyers are skeptical of relying on an exchange for shading.

### **Competitive Positioning**

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Supply Path Optimization (SPO)

**Overview**

of tools to provide our buyers and bidder partners with the most efficient path to supply while optimizing their working media dollar.

One of the processes Xandr utilizes is a free, proprietary Supply Path Optimization (SPO) mechanism. It was deployed in 2016 to help manage the health of our marketplace by optimizing for path duplication, discrepancies, integration quality, and aiming to determine a buyer's most optimal path to supply. There are multiple variables taken into consideration when deciding whether a supply source should be SPO-ed. Price is only one of those variables - additional variables may include:

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